

9. (Amended) A method for treating degenerating cholinergic neurons in a patient in need of same comprising administering to said patient a pharmaceutical composition comprising an amount of BMP-9 in a pharmaceutically acceptable vehicle sufficient to induce differentiation of progenitor cells into cholinergic neurons.

11. (Amended) A method for upregulating the genes for choline acetyltransferase in a patient in need of same comprising administering a pharmaceutical composition comprising an amount of a BMP-9 protein in a pharmaceutically acceptable vehicle sufficient to upregulate the genes for choline acetyltransferase in said patient.

12. (Amended) A method for upregulating vesicular acetylcholine transporter in a patient in need of same comprising administering a pharmaceutical composition comprising an amount of a BMP-9 protein in a pharmaceutically acceptable vehicle sufficient to upregulate vesicular acetylcholine transporter in said patient.

14. (Amended) A method for treating degenerating motor neurons in a patient in need of same comprising administering to said patient an amount of a BMP-9 composition sufficient to prevent degeneration of motor neurons in said patient.

17. (New) A method for treating malfunctioning cholinergic neurons in a patient in need of same comprising administering to said patient a pharmaceutical composition comprising an amount of BMP-9 in a pharmaceutically acceptable vehicle sufficient to induce differentiation of progenitor cells into cholinergic neurons.

#### **REMARKS**

Reconsideration of the application is requested. Applicants cancel claims 1-6, 8, 10, 13, 15, and 16 without prejudice and reserve the right to pursue the subject matter

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